

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant : Donald F. Hamilton et al.  
Serial No. : 08/777,958  
Filed : December 24, 1996  
Title : VEHICLE TRUNK WOOFER

Art Unit : 2644  
Examiner : Daniel Swerdlow

**Mail Stop Appeal Brief - Patents**

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY BRIEF FOR APPELLANT

I. CLAIMS 1, 3-6 AND 8-10 WERE NEVER QUESTIONED AS NONENABLED IN THE PARENT APPLICATION FILED ON APRIL 21, 1992, OR THIS CONTINUATION APPLICATION FILED DECEMBER 24, 1996, FOLLOWING TWO APPEALS WITH DECISIONS RENDERED BY THE BOARD OF PATENT APPEALS AND INTERFERENCES BECAUSE IT IS MANIFEST THAT THOSE SKILLED IN THE ART KNOW HOW TO PLACE A SMALL LOUDSPEAKER IN THE TRUNK, PREFERABLY THE REAR CORNER, AS DISCLOSED.

The Examiner's Answer states:

**Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an audio speaker system wherein the speaker is disposed in the rearward section of the trunk, does not reasonably provide enablement for the speaker occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in the rear deck.** The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, the invention of Claim 1 requires a low frequency speaker of sufficiently small size and regular shape to occupy negligible space by fitting into a rear trunk corner as depicted in appellant's Figures 1, 2 and 6. This requires a low frequency speaker the approximate size and shape of a standard brick. At the time of the invention, low frequency speakers of this size and shape were not known to those of ordinary skill in the art. Evidence of this is found in Ziffer (March). In the paragraph

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spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention. In the appeal brief filed on 30 October 2003, appellant states: "it is impossible to put these large Bazooka bass speakers in the rear trunk corner at the rear of the vehicle" (page 12, last paragraph). As such, appellant admits that the most compact bass speaker known to one of ordinary skill in the art at the time of the invention could not be employed as claimed. Appellant's disclosure provides no information on how to produce a low frequency speaker of the size and shape necessary to be employed as claimed. Claims 3 through 6 and 8 through 10 depend from Claim 1. As such, the claims incorporate the same unenabled matter and are not enabled. In addition, Claims 3 and 8 require rear corner mounting and so claim a compactness of the speaker beyond what is required by Claim 1. Therefore the failure of enablement is greater for these claims. In addition, examiner presents below prior art rejections for Claim 1 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) appellant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. Pp. 4-5.

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**In part I of appellant's Argument**, appellant makes arguments concerning the rejection of all pending claims under 35 USC 112, first paragraph for lack of enablement. The rejection is based on the following evidence:

In Ziffer (March) in the paragraph spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention:

"One thing that made this installation kind of tricky was that [vehicle owner] Will didn't want it to take up any space," said Garst. Bass enclosures are usually the most voracious consumers of space. "We got around that by using Bazooka Bass Tubes," Garst explained. "They're designed to load into a corner and to work in the trunk of a car without having to cut holes in the vehicle."

In the paragraph spanning the first and second columns of page 48, Garst is identified as the owner of Custom Alarm, Radio & Sunroof of Old Greenwich, Connecticut, a shop specializing in car audio installation. As such, in the absence of any conflicting evidence, this statement is given weight and constitutes the preponderance of evidence on the record concerning this subject.

In the appeal brief filed on 30 October 2003, appellant states: "it is impossible to put these large Bazooka bass speakers in the rear trunk corner at the rear of the vehicle" (page 12, last paragraph).

If the Bazooka Bass Tube was the epitome of compactness in bass speakers known to one skilled in the art at the time of the invention, as indicated

by the Garst statement and these same Bazooka Bass Tubes were too large to be employed as claimed, as is admitted by appellant, then it follows logically that one skilled in the art at the time of the invention would not have been enabled by appellant's disclosure to practice appellant's invention.

Appellant's first argument is that this rejection was first made in the Office action mailed on 23 August 2004. This argument is unpersuasive for several reasons. First, the introduction of this ground of rejection was made in a non-final Office action, after appellant filed an appeal brief on 30 October 2003. As such, the new ground of rejection is perfectly proper. Second, the new ground of rejection has its factual basis in part in admissions made by appellant in that appeal brief. As such, the rejections could not have been made sooner. Finally, the mere fact that a new ground of rejection was introduced at an intermediate point in the prosecution is not evidence of invalidity of that ground.

Appellant's second argument is that the disclosure does enable the claimed invention by providing the following guidance to the practitioner:

"As shown in the rear view of FIG. 2 placement of the speaker enclosure 9 is preferably in a corner of the vehicle trunk 7 (here the left corner) occupying negligible useful trunk volume." (Page 2, lines 17-20);

"While the speaker is shown mounted in an enclosure according to the preferred embodiment, the speaker could be mounted in the trunk without a separate enclosure." (Page 3, lines 26-28); and

"the trunk as a whole acts as a natural low-pass filter." (Page 2, line 26-27).

All of these statements assume a sufficiently small speaker. There is nothing in the disclosure that provides any guidance on how to make such a speaker. As such, appellant has not met the burden of refuting the evidence presented. Pp. 15-17.

Of course "all of these statements assume a sufficiently small speaker." But surely sufficiently small speakers have been known in the art for decades. Patent No. 2,915,588 granted December 1, 1959, the first patent granted to Dr. Bose, discloses four-inch drivers, any one of which could be used to embody the invention.

Manifestly, the description enables a mode of making and using the claimed invention. *Engel Industries, Inc. v. Lockfarmer Co.*, 20 U.S.P.Q. 2d 1438 (Fed. Cir.) 1991.

II. CLAIMS 1, 3-6 AND 8-10 PARTICULARLY POINT OUT AND DISTINCTLY CLAIM THE SUBJECT MATTER REGARDED AS THE INVENTION IN RECITING WHEREIN SAID AT LEAST ONE SPEAKER IS DISPOSED IN A REARWARD SECTION OF THE TRUCK OCCUPYING NEGLIGIBLE USEFUL TRUNK VOLUME TO CAUSE A SMALLER DECREASE IN CALCULATED TRUNK VOLUME THAN WOULD OCCUR WITH SAID AT LEAST ONE SPEAKER MOUNTED IN SAID REAR DECK AND WERE NEVER CHALLENGED AS INDEFINITE FOR MORE THAN A DECADE IN THE PARENT APPLICATION FILED IN 1992 AND THIS CONTINUATION APPLICATION FILED IN 1996 AND REVIEWED BY THE BOARD OF PATENT APPEALS AND INTERFERENCES IN TWO DECISIONS AND AFTER THREE APPEAL BRIEFS.

The Examiner's Answer states:

**Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention.**

Claim 1 claims a speaker system "wherein said at least one speaker is disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck." Appellant states in the disclosure that the "reference to negligible useful trunk volume means that the [speaker] enclosure portion in the useful trunk volume is a small percentage of the useful trunk volume" (page 3, lines 8-10). As is clear from appellant's Fig. 6, the amount of useful trunk volume occupied by the speaker depends on the size and shape of the vehicle trunk.

Appellant has depicted a large trunk with significant volume between the vehicle shell and the cosmetic trim resulting in only a small part of the speaker occupying useful volume. In a vehicle with a smaller trunk and less volume between the vehicle shell and the cosmetic trim, a larger portion of the speaker would occupy useful volume. Appellant claims the invention as a speaker system. As such, the limitations of the claimed invention cannot be made clear by reference to a vehicle of uncertain configuration. The claim could read on a particular speaker system when it is installed in one vehicle, but not on the same speaker system installed in a different vehicle. Similarly, whether a speaker disposed in a rearward section of the trunk would "cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in said rear deck" depends on the configuration of the vehicle. Since the configuration of the vehicle is not defined beyond a general recitation of vehicle elements (i.e., passenger compartment, spare tire compartment, trunk, trunk floor, dividing portion and rear deck), the claim is indefinite. In addition, examiner presents below prior art rejections for Claim 1 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with

sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) appellant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. This second interpretation is further supported by the fact that the indefinite claims do not limit the rear deck mounting orientation and position of the speaker(s) that serve as a basis for comparison for the claimed configuration. As such, the prior art rear corner mounting configuration need only be more space efficient than the least space efficient possible rear shelf mounting of the same speaker(s) (e.g., extending rearward along the center line of the car) to meet the claim.

Claims 8 through 10 are indefinite due to dependence from Claim 7. Pp. 6-7

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**In part II of appellant's Argument**, appellant makes arguments concerning the rejection of all pending claims under 35 USC 112, second paragraph for indefiniteness. The indefiniteness stems from the recitation in Claim 1, from which all other claims depend, of:

"wherein said at least one speaker is disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck."

The following factors contribute to the indefiniteness of the claim: First, the amount of useful trunk volume the speaker occupies depends on the size and shape of the trunk and, as such, is dependant on the particular vehicle used. Since a particular speaker system could meet the claim when installed in one vehicle but not when installed in a different vehicle, the claim is indefinite. Second, the claim doesn't clearly specify the configuration of "said at least one speaker mounted in said rear deck", which is a vital limitation in the claim. There are many possible rear deck mounting configurations for speakers, so it is unclear what this limitation means. Appellant makes irrelevant arguments directed to recitations of "at least one" speaker. Indefiniteness rejections based on this recitation were withdrawn after appellant's latest amendment. Appellant makes irrelevant arguments directed to recitations of "trunk rear". There are no indefiniteness rejections based on this recitation.

Appellant makes arguments based on a prior BPAI decision for the parent application of the present application that stated that "examiner has not given any reason why the objected to phrase [i.e., negligible useful volume] is considered to be vague and indefinite". This decision was based on rejections and statements made prior to 27 November 1996. The current rejections are specific as to the reasons the claims are considered indefinite. Pp. 17-18.

We stand on the reasoning set forth in our Appeal Brief. Pp. 7-8.

It is improper for the Patent Examiner to overrule a decision of the Board of Patent Appeals and Interferences on the very ground that the Board has ruled in a prior appeal.

III. CLAIMS 1, 3 AND 4 ARE NOT ANTICIPATED BY ZIFFER (MAY) BECAUSE THE REFERENCES DOES NOT DISCLOSE EACH AND EVERY ELEMENT IN THE CLAIM ARRANGED AS IN THE CLAIM.

The Examiner's Answer states:

**Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ziffer (May) (Car Audio and Electronics, May 1991).**

Claim 1 claims an audio speaker system for a vehicle. Ziffer (May) discloses a "full-blown sound system" (page 39, 2nd paragraph) including tweeters and woofers (i.e., an audio speaker system) (page 41, photos) for a white 1990 Mazda Protege (i.e., a vehicle) (page 39, 2<sup>nd</sup> paragraph). As is visible in the lower photograph on page 40, the vehicle disclosed has a passenger compartment (visible through the rear window seen between the raised trunk lid and the rear trunk lip), a spare tire compartment (visible around the spare tire), a trunk (page 40, photo caption) with a trunk floor (page 40, 1st column, 1st full paragraph), a dividing portion (visible in a closed position in upper photograph on page 40 and in an open position in the lower photograph on page 40) and a rear deck (page 42, lower photograph and associated caption) with the dividing portion and rear deck separating the trunk from the passenger compartment. Ziffer (May) further discloses the woofers (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 40, paragraph spanning 3rd and 4th columns and 2nd complete paragraph in 4th column) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille). The woofers disclosed by Ziffer (May) are clear of the rear deck (lower photograph on page 41 shows clearance between woofers and rear deck), above the trunk floor (top photograph on page 41 shows the disposition of the woofer above the trunk floor) and outside the spare tire compartment (lower photograph on page 40 shows woofers outside the spare tire compartment). Ziffer (May) further discloses woofers disposed in a rearward section of the trunk (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille) and flush mounted in the trunk walls (i.e., occupying no useful trunk volume) (page 40, lower photograph) and hence causing a smaller decrease in calculated trunk volume than would occur with the speakers mounted in the rear deck.

Regarding Claim 3, Ziffer (May) further discloses woofers disposed in a rear trunk comers (page 40, both photographs).

Regarding Claim 4, Ziffer (May) further discloses creation of woofer enclosures with fiberglass back walls built to conform to the shape of the car (page 40, paragraph spanning 3rd and 4<sup>th</sup> columns). Pp. 7-8.

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**In part III of appellant's Argument**, appellant makes arguments concerning the rejection of Claims 1, 3 and 4 under 35 USC 102 as anticipated by Ziffer (May). These rejections are based the car audio system installation described in a magazine article. The photographs on page 40 show the placement of components in the vehicle trunk. The woofers that correspond to the "at least one low frequency speaker" claimed are visible as circular outlines on the trunk side walls. It is clear from the photographs that these speakers are "disposed within the trunk", "clear of the rear deck", "above [the] trunk floor" and "outside [the] spare tire compartment" as claimed. Further, the photographs show the rearmost edges of these speakers very close to the trunk rear and the photograph at the top of page 41 shows significant spacing between the frontmost edge of the speaker and the front wall of the trunk, shown at the right of the photograph. As such, the reference discloses the speakers disposed "at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of [the] vehicle" as claimed. In addition, the reference discloses that the speakers are entirely within the trunk walls and, as such, occupy "negligible useful trunk volume" and cause "a smaller decrease in trunk volume than would occur with [the speakers] mounted in [the] rear deck" as claimed. Appellant's sole argument regarding these rejections is based on the mistaken interpretation that the reference discloses the speakers occupying useful trunk volume. It is clear from the photographs that the speakers are located within the trunk walls. The text states in the second complete paragraph of the third column on page 40 that "A subwoofer box has been positioned in each of the trunk's side walls" (emphasis added). While it may be true that the practitioner built out the trunk walls in order to accommodate the speakers, appellant's own disclosure relies on there being significant space between the vehicle outer skin and the trunk cosmetic trim to dispose the speaker(s) in "negligible useful trunk volume". It can make no difference to the patentability of the claimed speaker system whether the vehicle came from the factory with such a space between the outer skin and the cosmetic trim or that space exists due to subsequent modification by a practitioner. Pp. 18-19.

We stand on the authorities and reasoning set forth in our Appeal Brief. Pp 9-11. The contention that the reference discloses building out the trunk walls to accommodate the speakers is not disclosed in the reference. The reference discloses a subwoofer box on each side of the trunk.

What the Examiner is doing is attempting to use the claims being rejected as a template or blueprint in an attempt to read the rejected claims on the reference. This form of rejection is improper and has been rejected by the Federal Circuit Court of Appeals.

The alleged teaching is found, not in the references but in the claims being rejected. It is error to reconstruct the claimed invention from the prior art by using the rejected claim as a "blueprint." *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 548 (Fed. Cir. 1985).

Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.<sup>15</sup> This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."<sup>16</sup> *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1784 (Fed. Cir. 1992).

"A reference is only good for what it clearly and definitely discloses." *In re Hughes*, 145 U.S.P.Q. 467, 471 (C.C.P.A. 1965); *In re Moreton*, 129 U.S.P.Q. 227, 230 (C.C.P.A. 1961).

IV. CLAIMS 1, 3 AND 4 MEET THE CONDITIONS FOR PATENTABILITY UNDER SECTION 103 OVER PRIMARY REFERENCE ZIFFER (MAY) AND SECONDARY REFERENCE BAZOOKA AT LEAST BECAUSE IT IS IMPOSSIBLE TO COMBINE THE REFERENCES TO MEET THE LIMITATIONS OF THESE CLAIMS, AND THE REFERENCES FAIL TO SUGGEST THE DESIRABILITY OF COMBINING WHAT IS THERE DISCLOSED TO MEET THE LIMITATIONS OF THESE CLAIMS.

The Examiner's Answer states:

**Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer (May) in view of Bazooka.**

Claim 1 claims an audio speaker system for a vehicle. Ziffer (May) discloses a "full-blown sound system" (page 39, 2nd paragraph) including tweeters and woofers (i.e., an audio speaker system) (page 41, photos) for a white 1990 Mazda Protege (i.e., a vehicle) (page 39, 2<sup>nd</sup> paragraph). As is visible in the lower photograph on page 40, the vehicle disclosed has a passenger compartment (visible through the rear window seen between the raised trunk lid and the rear trunk lip), a spare tire compartment (visible around the spare tire), a trunk (page 40, photo caption) with a trunk floor (page 40, 1st column, 1st full paragraph), a

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<sup>15</sup> *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

<sup>16</sup> *In re Fine*, 837 F.2d at 1075, 5 USPQ2d at 1600.



dividing portion (visible in a closed position in upper photograph on page 40 and in an open position in the lower photograph on page 40) and a rear deck (page 42, lower photograph and associated caption) with the dividing portion and rear deck separating the trunk from the passenger compartment. Ziffer (May) further discloses the woofers (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 40, paragraph spanning 3rd and 4th columns and 2nd complete paragraph in 4th column) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille). The woofers disclosed by Ziffer (May) are clear of the rear deck (lower photograph on page 41 shows clearance between woofers and rear deck), above the trunk floor (top photograph on page 41 shows the disposition of the woofer above the trunk floor) and outside the spare tire compartment (lower photograph on page 40 shows woofers outside the spare tire compartment). Therefore Ziffer (May) is shown to anticipate all elements of Claim 1 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (May) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and "directed to the rearmost corner of the trunk". Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed "3-4 inches from the wall the woofer is facing" (i.e., the rear of the trunk). As such, Bazooka discloses the woofer disposed in a rearward section of trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (May) for the purpose of reducing installation time, effort and cost by utilizing a ready-made subwoofer instead of fabricating one from raw materials. Appellant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (May) and Bazooka makes obvious all elements of Claim 1.

Regarding Claim 3, as shown above apropos of Claim 1, the combination of Ziffer (May) and Bazooka makes obvious the speaker located in a rear trunk

corner at the rear of the vehicle. Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations). Pp. 9-11.

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**In part V of appellant's Argument**, appellant makes arguments concerning the rejection of Claims 3 and 4 under 35 USC 103 as unpatentable over Ziffer (May) in view of Bazooka. While examiner maintains that the primary reference anticipates all elements of Claims 1, 3 and 4, the Bazooka reference also provides teaching and motivation for the additional limitations claimed in dependant Claims 3 and 4. The Bazooka reference is an advertisement depicted the manufacturer's recommendation for disposition of Bazooka tubes in vehicles of various configurations, including a small sedan (bottom picture). The picture shows the Bazooka woofers disposed against the trunk side walls at the rear of the trunk. The advertisement also states in the second paragraph that "the woofers should be pointed into the corner formed by the side wall, rear wall and floor of the vehicle 3-4 inches from the wall the woofer is facing" and in the third paragraph that "Bazooka woofers can be directed into the rearmost corner of the trunk". As such, trunk rear corner mounting is clearly indicated. Motivation to replace the woofers disclosed in Ziffer (May) with the Bazooka tubes comes from the relative ease of installing the Bazooka tubes which include ready-made enclosures. This maintains the requirements of Claim 1 as to the speaker(s) being disposed "disposed within the trunk of the vehicle at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of said vehicle such that said at least one speaker is clear of the rear deck above said trunk floor and outside said spare tire compartment". Further it is clear from the bottom illustration in the advertisement that the rear corner mounting causes "a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck". In addition, appellant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting.

Examiner sees no substantial arguments in this section of the appeal brief. Pp. 20-21.

We stand on the authorities and position set forth in our Appeal Brief. Pp. 15-16.

Manifestly, the disclosure of the Bazooka enclosures each taking up at least a cubic foot of volume in the trunk can hardly be regarded as occupying negligible useful trunk volume to

cause a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck with the Bazooka so mounted extending one foot below the rear deck.

V. CLAIMS 1, 3-6 AND 8-10 MEET THE CONDITIONS FOR PATENTABILITY UNDER SECTION 103 OVER PRIMARY REFERENCE ZIFFER (MARCH) IN VIEW OF SECONDARY REFERENCE BAZOOKA AT LEAST BECAUSE IT IS IMPOSSIBLE TO COMBINE THESE REFERENCES TO MEET THE LIMITATIONS OF THESE CLAIMS, AND NOTHING IN THE REFERENCES SUGGEST THE DESIRABILITY OF COMBINING WHAT IS THERE DISCLOSED TO MEET THE LIMITATIONS OF THESE CLAIMS.

The Examiner's Answer states:

**Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 103(a) as being**

**unpatentable over Ziffer (March) in view of Bazooka.** These rejections rely on the embodiment depicted in the top photograph on page 48 in Ziffer (March) showing the bass tubes placed near the trunk front wall.

Claim 1 claims an audio speaker system for a vehicle. Ziffer (March) discloses bass tubes (i.e., an audio speaker system) (page 48, top photo) for a Volvo 740 Turbo (i.e., a vehicle) (page 47, 1st paragraph). As is visible in the photograph on page 47, the vehicle disclosed has a passenger compartment (visible through the side windows), a spare tire compartment (page 48, top photo shows gap in carpet between spare tire compartment lid and trunk floor), a trunk (page 48, top photo caption) with a trunk floor (page 48, top photo), a trunk front wall (i.e., dividing portion) (page 48, last paragraph) and a rear shelf (i.e., rear deck) (while not clearly depicted or described in Ziffer (March), evidence of the inherency of a rear shelf in a 1990 Volvo 740 Turbo sedan is found in Justin. "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back"), with the dividing portion and rear shelf separating the trunk from the passenger compartment. Ziffer (March) further discloses the bass tubes (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 48, top photograph). The bass tubes disclosed by Ziffer (March) are above the trunk floor and outside the spare tire compartment (top photograph on page 48). Therefore Ziffer (March) is shown to anticipate all elements of Claim 1 except the speaker(s) disposed at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (March) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and "directed to the rearmost corner of the trunk". Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed "3-4 inches from the wall the woofer is facing" (i.e., the rear of the

trunk). As such, Bazooka discloses the woofer disposed in a rearward section of the trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle (i.e., at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck). The Bazooka reference is produced by the manufacturer of the bass tubes disclosed in Ziffer (March) and represents rear corner mounting as the preferred configuration for a sedan. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (March) for the purpose of ensuring proper function of the bass tube by installing according to the manufacturer's recommendation.

Further, as shown above, the combination makes obvious rear corner mounting of the bass tubes. Appellant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 1.

Regarding Claim 3, as stated above apropos of Claim 1, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 3.

Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

Regarding Claim 5, appellant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck-mounted speakers (page 3, lines 13-25). As shown below apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers and does not have rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 5.

Regarding Claim 6, the rear shelf (i.e., rear deck) of the 1990 Volvo 740 Turbo sedan has no speaker holes in the rear deck. Evidence of the rear shelf without speaker holes in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back." Ziffer (March) further discloses that a design consideration was to not cut

holes in the vehicle (page 48, paragraph spanning 3rd and 4th columns) and that the vehicle was purchased without a factory sound system (paragraph spanning pages 47 and 48). The Ziffer article is directed to a complete description of the vehicle sound system and makes no mention of rear shelf speakers or rear shelf speaker holes. Therefore, it is clear that the rear deck in the vehicle disclosed in Ziffer (March) is free of speaker holes. As such, the combination of Ziffer (March) and Bazooka is shown to make obvious all elements of Claim 7 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. As shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. Appellant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 6.

Regarding Claim 8, as stated above apropos of Claim 7, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 8.

Regarding Claim 9, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

Regarding Claim 10, appellant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck-mounted speakers (page 3, lines 13-25). As shown above apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers or have rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 10. Pp. 11-15.

...

**In part VI of appellant's Argument**, appellant makes arguments concerning the rejection of all pending claims under 35 USC 103 as unpatentable over Ziffer (March) in view of Bazooka. The primary reference discloses a car audio installation that includes Bazooka Bass Tube woofers disposed in a manner not recommended by their manufacturer. Examiner has shown in the claim rejection above that disposing these woofers in accordance with the manufacturer's

instructions as disclosed in the Bazooka reference results in a configuration that meets all limitations as to the disposition of the speakers in Claims 1, 3, 4, 8 and 9. Examiner has further shown, using the Justin reference as evidence, that the vehicle disclosed in Ziffer (March) has no holes in the rear deck as specified in Claim 6. Examiner has further shown, using appellant's admissions that the frequency response claimed is inherent in the combination of Ziffer (March) and Bazooka.

Examiner sees no substantial arguments in this section of the appeal brief.  
P. 21.

We stand on the position in our appeal brief. Pp. 13, 19-20. While the Examiner's Answer appears to be asserting this rejection on the primary and secondary references, it appears as if Justin is being identified as a tertiary reference, an undated item, which even if properly citable as a reference fails to suggest the desirability of modifying what is there disclosed to meet the limitations of these rejected claims.

VI. THE EXAMINER'S ANSWER DOES NOT DISPUTE THAT THE FAILURE OF THE PTO TO OBTAIN A SINGLE RELEVANT REFERENCE IN RESPONSE TO THE PTO EMAIL SENT TO COMPETITORS OF THE APPLICATION OWNER SEEKING PRIOR ART IN AN EFFORT TO BAR THE GRANT OF A PATENT TO APPLICATION OWNER IS FURTHER EVIDENCE THAT THE CLAIMS MEET THE CONDITIONS FOR PATENTABILITY.

The Examiner's Answer states:

**In part VII of appellant's Argument**, appellant makes arguments concerning a request for information made by the Office's Electronic Information Center for pictures and descriptions of trunk-mounted low frequency speakers before 1992. Examiner does not dispute that this request was made. To the best of examiner's knowledge no information relevant to this application was received in response to this request. P.22

The admission that the e-mail quoted in our Appeal Brief, pp. 20-21, failed to furnish a single response, indicating that there is no more pertinent art that has been considered since the parent of this application was filed more than a dozen years ago, is further evidence that the invention disclosed and claimed in this application meets the conditions for patentability.

VII. INSTEAD OF RECOGNIZING THE AUTHORITY OF THE PUBLISHED DECISIONS OF THE FEDERAL CIRCUIT COURT OF APPEALS AND THE BOARD UPON WHICH WE RELY, NONE OF WHICH WERE MENTIONED IN THE EXAMINER'S ANSWER, THE EXAMINER CITES THREE CASES WHICH ARE READILY DISTINGUISHABLE.

The Examiner's Answer states:

Appellant's repeated statements regarding requests for examiner "to quote verbatim the language in each reference regarded as corresponding to each limitation in each of these rejected claims, and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims" ignores the principal that drawings and pictures can anticipate claims if they clearly show the structure which is claimed. *In re Mraz*, 455 F.2d 1069, 173 USPQ 25 (CCPA 1972). The disclosures relied upon are largely pictorial and, given the nature of the claims, it is entirely appropriate to rely on these disclosures. Further, motivation can be found in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d347, 21 USPQ2d 1941 (Fed. Cir. 1992). P.22

The Examiner's Answer has not even mentioned the controlling decisions of the Federal Circuit Court of Appeals and published Board decisions binding upon the PTO and upon which we rely.

We take this occasion to explain what precedents are considered binding in proceedings in the Patent and Trademark Office (PTO). Where the Court of Appeals for the Federal Circuit has addressed a point of law in a published opinion, the Federal Circuit's decision is controlling. Similarly controlling are decisions considered to be binding precedent by the Federal Circuit, i.e., decisions of the former Court of Claims and the former Court of Customs and Patent Appeals, as well as the former Customs Court. See *South Corp. v. United States*, 690 F.2d 1368, 215 USPQ 657 (Fed. Cir. 1982)(in banc); *Bar Zell Expeditors, Inc. v. United States*, 698 F.2d 1210, 1211 n. 4 (Fed. Cir. 1983). In those relatively rare cases where the Federal Circuit has not addressed an issue, but there is "authorized published" Board precedent, that published Board precedent is binding on panels of the Board and Examiners in the Patent Examining Corps. *Ex parte Holt*, 19-U.S.P.Q. 2d 1211, 1214 (BPA&I 1991).

The only three cases cited in the Examiner's Answer are readily distinguishable.

In *In re Fine*, the claims were directed to a system for detecting and measuring minute quantities of nitrogen compounds comprising a gas chromatograph, a converter which converts nitrogen compounds into nitric oxide by combustion, and a nitric oxide detector. The primary reference disclosed a system for monitoring sulfur compounds comprising a chromatograph, combustion means, and a detector, and the secondary reference taught nitric oxide detectors. The examiner and Board asserted that it would have been within the skill of the art to substitute one type of detector for another in the system of the primary reference, however the court found there was no support or explanation of this conclusion and reversed.

In *In re Jones*, the claimed invention was the 2-(2'-aminoethoxy) ethanol salt of dicamba, a compound with herbicidal activity. The primary reference disclosed inter alia the substituted ammonium salts of dicamba as herbicides, however the reference did not specifically teach the claimed salt. Secondary references teaching the amine portion of the salt were directed to shampoo additives and a byproduct of the production of morpholine. The court found there was no suggestion to combine these references to arrive at the claimed invention.

And in *In re Mraz*, 173 U.S.P.Q. 25, 28 (C.C.P.A. 1972), the court said:

However, claims are unpatentable when they are so broad as to read on obvious subject matter even though they likewise read on non-obvious subject matter. Here, appellant's claims read on edge rolls having a 6° groove angle and constructed from mating parts. We have found that Wilson shows an edge roll having a 6° groove angle, and appellant no longer seriously relies on the two-part construction limitation. Appellant's claims are therefore unpatentable under § 103.

Manifestly, the claims, sans a minor limitation, do not read on a reference here.



### CONCLUSION

In view of the forgoing authorities and reasoning and that advanced in our Appeal Brief and in the inability of the prior art to anticipate, suggest or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, the decision of the Examiner finally rejecting claims 1, 3-6 and 8-10 should be reversed. Should the Board be of the opinion that one or more of the rejected claims may be allowed in amended form, the Board is respectfully requested to include an explicit statement that a claim may be allowed in such amended form and direct that application owner should have the right to amend in conformity with such statement which shall be binding on Examiner in the absence of new references or grounds of rejection.

Respectfully submitted,  
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